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Improving the sensitivity to map nonlinear parameters for hyperelastic problems

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Highlights (for review)

- A novel method is introduced to map nonlinear parameters of a hyperelastic material model from spatially measured displacements.
- The presented method modifies the constitutive equation while preserving its stress-strain response.
- Mapping the nonlinear parameters with the altered formulation proves to be significantly more robust than currently used approaches.

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